

**Remarks/Arguments****I. Status of the Claims**

In the Office Action, the Examiner indicated that claims 1-9, 11-19 and 24 are pending, rejected claims 1, 3, 6, 11, 16 and 24 under 35 U.S.C. §102(b), and rejected claims 2, 4, 5 and 12-15 under 35 U.S.C. §103(a).

Also in the Office Action, the Examiner indicated that claims 7-9 and 17-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim. The Applicants appreciate the Examiner's indication that these claims are directed to allowable subject matter. These claims are retained in dependent form, however, because they depend from claims that are themselves directed to allowable subject matter for the reasons discussed below.

Claims 10 and 20-23 were previously canceled in light of a restriction requirement.

The independent claims, i.e., claims 1, 6, 11, 16 and 24, are amended herein to more clearly set forth the invention.

Claim 25 is added by this Amendment. This new claim, which depends from independent claim 24, includes recitations to first and second normalizing means. These recitations are similar to the recitations to first and second normalizing means in claim 17, which is directed to allowable subject matter.

Claims 1-9, 11-19, 24 and 25 are pending for reconsideration.

II. Rejection of Claims 1, 3, 6, 11, 16 and 24 under 35 U.S.C. §102(b) as being Anticipated by Lee et al. (U.S. Patent No. 5,245,661)

At pages 2-3, item 3 of the Office Action, claims 1, 3, 6, 11, 16 and 24 are rejected under 35 U.S.C. §102(b) as being anticipated by Lee et al. (U.S. Patent No. 5,245,661).

This rejection is respectfully traversed to the extent that it is maintained. A proper rejection under 35 U.S.C. §102 requires that the reference disclose each and every claim element as set forth in the claims. As discussed below, however, the Lee et al. patent fails to disclose (or even suggest) the invention as now claimed.

The independent claims, i.e., claims 1, 6, 11, 16 and 24, are amended herein to more clearly set forth the invention. The Lee et al. patent fails to disclose (or even suggest) the invention as now set forth in these independent claims. For example, independent claim 1 is directed to a method of electronic watermarking signals representing a work, e.g., a copyrightable work such as musical recording, movie, video game and/or computer program product. Claim 1 recites the steps “sampling input signals using an uneven sampling rate, wherein the input signals are signals representing the work” and “outputting unevenly sampled signal data representing the work”. Independent claim 11 is directed to an apparatus for electronic watermarking signals representing a work and includes similar limitations in the form of means-type recitations. The Lee et al. patent fails to disclose (or even suggest) the recited steps and means in the context of watermarking signals representing a work. The Lee et al. patent describes the use of non-uniform sampling time intervals by sampling means 2 (in a scrambler) and sampling means 4 (in a descrambler), but only for synchronization of the descrambler relative to the scrambler. The samples generated by the scrambler’s sampling means 2

are sent to comparator 3 (in the descrambler) for comparison with the samples generated by the descrambler's sampling means 4. For synchronization of the descrambler, the state of the descrambler SRG (shift register generator) is repeatedly corrected based on the comparison until the descrambler SRG sequence becomes identical to the scrambler SRG. The Lee et al. patent does not disclose (or even suggest) using these samples (i.e., samples generated by the sampling means 2,4 using non-uniform sampling time intervals) in the context of watermarking signals representing a work as required by independent claims 1 and 11. In this regard, it is significant to note that the samples generated by the sampling means 2,4 using non-uniform sampling time intervals are not output as part of the scrambled bitstream or the descrambled bitstream as described in the Lee et al. patent.

Independent claim 6 is directed to a method of authentication of candidate data and recites the steps "sampling original signals using an uneven sampling rate to produce unevenly sampled original signal data", "comparing the unevenly sampled original signal data with the candidate data for a degree of match", and "determining whether the candidate data is authentic based on the degree of match". Independent claim 16 is directed to an apparatus for authentication of candidate data and includes similar limitations in the form of means-type recitations. Independent claim 24 is directed to a data processing system and likewise includes similar limitations in the form of means-type recitations. The Lee et al. patent fails to disclose (or even suggest) the recited steps and means to provide authentication of candidate data. The Lee et al. patent describes the use of non-uniform sampling time intervals by sampling means 2 (in a scrambler) and sampling means 4 (in a descrambler), but only for synchronization of the descrambler relative to the scrambler. The samples generated by the scrambler's sampling means 2 are sent to comparator 3 (in the descrambler) for comparison with the samples generated by the descrambler's sampling means 4. For synchronization of the descrambler, the state

of the descrambler SRG (shift register generator) is repeatedly corrected based on the comparison until the descrambler SRG sequence becomes identical to the scrambler SRG. The Lee et al patent does not disclose (or even suggest) using these samples (i.e., samples generated by the sampling means 2,4 using non-uniform sampling time intervals) to determine whether candidate data is authentic as required by independent claims 6, 16 and 24.

Claim 3 depends directly from independent claim 1, and sets forth all of the limitations therein. For at least the reasons discussed above with respect to independent claim 1, the Applicants respectfully submit that dependent claim 3 also patentably defines over the prior art.

Therefore, the Applicants respectfully request reconsideration and withdrawal of this rejection of claims 1, 3, 6, 11, 16 and 24 under §102(b).

III. Rejection of Claims 2, 4, 5 and 12-15 under 35 U.S.C. §103(a) as being Unpatentable over Lee et al. (U.S. Patent No. 5,245,661)

At pages 3-4, item 5 of the Office Action, claims 2, 4, 5 and 12-15 are rejected under 35 U.S.C. §103(a) as being unpatentable over Lee et al. (U.S. Patent No. 5,245,661). {In an apparent typographical error, the Office Action incorrectly cites the patent number of a reference that is explicitly not relied upon.}

This rejection is respectfully traversed to the extent that it is maintained. As discussed below, the Lee et al. patent fails to disclose or suggest the invention as now set forth in the claims.

Claims 2, 4 and 5; and 12-15 depend, directly or indirectly, from independent claims 1 and 11, respectively, and set forth all of the limitations therein. For at least the reasons discussed above in Section II with respect to independent claims 1 and 11, the Applicants respectfully submit that dependent claims 2, 4, 5 and 12-15 also patentably define over the prior art.


Therefore, the Applicants respectfully request reconsideration and withdrawal of this rejection of claims 2, 4, 5 and 12-15 under §103(a).

IV. Conclusion

In view of the foregoing comments and amendments, the Applicants respectfully submit that all of the pending claims (i.e., claims 1-9, 11-19, 24 and 25) are in condition for allowance and that the application should be passed to issue.

If a conference would be of value in expediting the prosecution of this application, the Examiner is hereby invited to telephone the undersigned counsel at (540) 785-6578 to arrange for such a conference.

Respectfully submitted,

By:   
Matthew J. Bussan  
Registration No.: 33,614  
8308 Canteen Circle  
Fredericksburg VA 22407

Telephone: (540) 785-6578  
Fax No.: (540) 785-6578